

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Sukhendu K. Majumdar

GENERAL INFORMATION:

Name:	MarkWest Energy Appalachia, LLC
Address:	PO Box 575, Route 23 South Shore, KY 41175
Date application received:	8/14/2008
SIC Code/SIC description:	1321, Natural Gas Processing
Source ID:	21-089-00005
Agency Interest:	1600
Activity:	APE20080002
Permit:	F-05-011 R2 (Minor Revision)

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
X Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input checked="" type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	2007 Actual (tpy)	Potential (tpy)
PM/PM ₁₀	1.06/1.06	2.9/2.9
SO ₂	0.083	0.3
NO _x	14.1	39.03
CO	11.7	32.2
VOC	4.54	434.0
Single HAPs	None	<10
Source wide HAPs	None	<25

Revision F-05-011 R2:

The Division has received a minor permit revision application from MarkWest Energy Appalachia, LLC on August 14, 2008. MarkWest Energy Appalachia, LLC proposed to install one CO₂ stripper, a cooling water tower and proposed to modify the existing flare tip at Siloam facility. Increase in fugitive emissions will be from the addition of light liquid/gas valves (total 50 count) and pumps (12 light oil pump seals). The modification of the existing flare tip will increase natural gas burning at the three pilots to 58.5 standard cubic feet (scf) per hour per pilot. There will be no additional emission point. The change in potential to emit (PTE) will be less than 0.1 ton per year and will be considered as insignificant. There will no change in Hazardous Air Pollutant (HAP) emissions due to the proposed addition and modification. Pursuant to 401 KAR 52:030 Section 14, addition and modification of the facility would be considered as minor revision as the change in the total emissions will be insignificant (less than 0.1 tpy).

SOURCE DESCRIPTION:

MarkWest Energy Appalachia, LLC owns and operates an onshore natural gas processing plant located in South Shore, Kentucky referred to as the Siloam facility. This facility receives natural gas liquids from pipeline and from trucks and then physically separates the natural gas liquids into its pure components, such as propane, butane and other products.

The Siloam facility is classified as an onshore natural gas processing plant that uses fractionation to produce a variety of products from natural gas liquids (NGL). The equipment at this facility, which also has the potential to generate emissions of regulated air contaminants, is capable of producing propane, normal butane, iso-butane, high-purity butanes and natural gasoline. Operations at the facility include NGL fractionation equipment, above/under ground storage and process tanks, truck loading/unloading operations, railcar loading operations and river barge loading operations. The facility is also equipped with two small industrial boilers (each less than 250 mmBtu/hr).

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

MarkWest Energy Appalachia, LLC has requested voluntary permit emission limits of 9 tons per year (tpy) or less of a single Hazardous Air Pollutant (HAP), 22.5 tpy or less of combined HAPs, and 90 tpy or less of Volatile Organic Compounds (VOC). Compliance with the permit limits shall make the requirements of 401 KAR 52:020, Title V permits, not applicable to this source. Compliance with the VOC limit shall also make this source a synthetic minor source pursuant to 401 KAR 51:017, Prevention of Significant Deterioration (PSD) of air quality.

OPERATIONAL FLEXIBILITY:

None